AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/078,723

Filing Date: February 19, 2002

Title: RUN-TIME COMPRESSION/DECOMPRESSION OF A BOOT IMAGE

Assignee: Intel Corporation

REMARKS

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This paper responds to the Office Action mailed on May 5, 2005.

Claims 1, 2, and 21 are amended. Claims 7-20 are canceled. As a result, claims 1-6 and 21-24 are now pending in this application.

Interview Summary

Applicant thanks Examiner Albert Wang for the courtesy of a telephone interview on April 28, 2005 with Applicant's Representative Ann M. McCrackin.

Affirmation of Election

As provisionally elected by Applicants representative, <u>Ann McCrackin</u>, on <u>April 28</u>, <u>2005</u>, Applicant elects to prosecute Group I, claims 1-6 and 21-24.

Claims 7-20 (Group II) are hereby canceled without disclaimer or prejudice. Applicant reserves the right to later file continuation or divisional applications to reintroduce the canceled claims.

Objection of the Claim

Claim 2 was objected to because of the following informalities: "programing" is misspelled. Applicant amends claim 2 to correct the misspelling.

§103 Rejection of the Claims

Claims 1-6 and 21-24 were rejected under 35 USC § 103(a) as being unpatentable over Klimenko (U.S. 5,974,547) in view of Leung et al. (U.S. 6,282,647, hereinafter Leung) and Greene et al. (U.S. 5,836,013, hereinafter Greene).

Applicant respectfully traverses.

Independent claim 1 is amended and recites:

receiving a boot image for a network card from a server via a network;

creating a compressed boot image from the boot image for the network card; and

programming the compressed boot image into a boot ROM of the network adapter.

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Klimenko teaches a method for booting an operating system (O/S) on a client computer through a network such as a local area network (LAN). Klimenko describes in FIG. 2A that the client computer of Klimenko has a *network interface card* (NIC) for communicating with the network.

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Leung teaches a method for updating a read only memory (ROM) chip of a *host adapter* with an updated code. Leung states that it is well known that there are numerous of host adapters, some of the most commonly used are SCSI host adapters and the like (Leung's column 1, lines 29-32). Leung describes in FIG. 1A and FIG. 1B that host adapters 106 can provide communication for one or more peripheral devices within a host computer system 102. Some examples of peripheral devices connected to host adapters include hard drives, compact disc (CD) players, digital video disc (DVD) players (Leung's column 1, lines 19-21).

Thus, Leung's host adapter is used for communicating with peripheral devices such as hard drives, CD players, and DVD players, whereas Klimenko's NIC is used for communicating with a network such as a LAN. Therefore, Klimenko's NIC and Leung's host adapter are different devices and serve different purposes.

Greene teaches a method for compressing and storing compressed data in *system memory* of a computer. Greene does not teach or have any suggestion related to either a NIC such as Klimenko's NIC or a host adapter such as Leung's host adapter.

In rejecting the claims of the present invention, the Office Action states that at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Leung's "receiving" and programming to Klimenko's method for receiving a boot image for a network card. However, as discussed above, Klimenko's method is for booting an operating system (O/S) on a client computer through a network connected to a NIC. Leung's method is for updating an option ROM chip of host adapter with updated code. Applicant is unable to find in the teachings of Klimenko and Leung, either individual or in combination, a showing or a fair suggestion of "receiving a boot image for a network card" via a server, as claimed in claim 1.

The Office Action also states that at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Leung's receiving and "programming" to Klimenko's method for programming the compressed boot image into a boot ROM of the network adapter. However, Applicant is unable to find in the teachings of Klimenko and Leung, either individual

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or in combination, a showing or a fair suggestion of programming the "compressed" boot image into a "boot ROM of the network adapter".

The Office Action further states that at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Green's compression to Klimenko/Leung's method for creating a compressed boot image from the boot image. However, as discussed above, Klimenko's method involves a NIC; Leung's method involves a host adapter; and Greene's method involves compressing data in system memory of a computer and stores the compressed data in the system memory of the computer. Applicant is unable to find in Klimenko, Leung, and Greene, either individual or in combination, a showing or a fair suggestion of creating a compressed boot image "from the boot image for the network card", as claimed in claim 1.

Based on all of the reasons presented above, Applicant respectfully submits that a *prima* facie case of obviousness has not been made. Accordingly, Applicant request reconsideration and withdrawal of the rejection, and allowance of claim 1 and dependent claims 2-6.

Independent claim 21 is amended and recites, among other things, a network adapter comprising a boot ROM, and "a storage device comprising a utility program" that when executed on the processor is to compress "a boot image for the network adapter" into a compressed boot image and program the "compressed" boot image into "the boot ROM of the network adapter".

As discussed above regarding claim 1, Applicant is unable to find in Klimenko, Leung, and Greene, either individual or in combination, a showing or a fair suggestion of compressing "a boot image for the network adapter" and programming the "compressed" boot image into "the boot ROM of the network adapter", as claimed in claim 21.

Further, Applicant is unable to find in Klimenko, Leung, and Greene, either individual or in combination, a showing or a fair suggestion of "a storage device comprising a utility program". The Office Action indicates that Leung teaches a storage device for holding a utility program (column 5, 30-39, RAM 120). However, Applicant is unable to find Leung's column 5, 30-39, RAM 120 that RAM 120 comprises a utility program, when executed on a processor, is to compress a boot image for the network adapter into a compressed boot image and program the compressed boot image into the boot ROM of the network adapter. The Office Action also refers to option ROM BIOS programming utility 140. However, as shown in FIG. 3 and

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described in column 5 of Leung, option ROM BIOS programming utility 140 resides in host adapter 106 and not in storage device RAM 120.

Based on all of the reasons presented above, Applicant respectfully submits that a *prima* facie case of obviousness has not been made. Accordingly, Applicant request reconsideration and withdrawal of the rejection, and allowance of claim 21 and dependent claims 22-24.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6969) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 4 day of November, 2005.

JACLYN SKIBA

Name

Signature